P&G Case 9406

In the Application of :
Bruce E. Tepper et al. :
Serial No. 10/699,470 :
Filed: October 31, 2003 :
Group Art Unit 1773 :
Confirmation No.: 2772 :
Examiner Hoa T. Le :
Title: VOLATILE SUBSTANCE-CONTROLLING :
COMPOSITION :

DECLARATION OF BRUCE E. TEPPER PURSUANT TO 37 CFR §1.132

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313

Dear Sir:

I, Bruce E. Tepper of Cincinnati, Ohio, the undersigned, hereby declare as follows:

1. All statements made herein are true to the best of my knowledge, or, if made upon information and belief, are believed to be true.

2. I am a co-inventor in the above-identified application, and am familiar with the subject matter, including the claims, of the application.

3. I received a B.S. in Biology from The City College of New York in 1975; a M.S. in Environmental Science from Rutgers University in 1980; and a Ph.D. in Population Genetics from The University of Maryland in 1986.

4. I have worked with The Procter & Gamble Company ("P&G"), assignee of the above identified application, since December 11, 1989, where I am currently a Senior Scientist in Baby Care Materials and Technology Development. I am particularly familiar with fragrance dosed sorbent technology, including gas displacement fragrance dosed sorbent technology, including as described in the present application.

5. I am familiar with the Official Action dated June 1, 2006 in the above-identified application and the art applied in that Official Action, namely JP 60-018,171 ("Kobayashi").

6. The above-identified application utilizes gas displacement fragrance dosed sorbent technology for a responsive, proportional and controlled release of fragrance from a sorbent by exposure to a volatile substance. The claims require a fragrance component comprising at least

one PRM, wherein the fragrance component is impregnated onto the surfaces of the sorbent and wherein the fragrance component is released from the sorbent primarily in the presence of one or more volatile substances and the volatile substances are adsorbed by the sorbent.

7. The Office reasons that there is no evidence that the release of Applicants' fragrance component is linked to the presence of a suitable volatile substance.

8. As asserted before in the response submitted on December 22, 2005, I still affirm that the slow-release fragrance agents taught by the Kobayashi patent are distinct from those that are currently required by the present claims. The slow-release fragrance agents taught by Kobayashi do not meet the claimed criteria. This is evidenced by the SPME-GC-FID (Solid Phase Microextraction – Gas Chromatography – Flame Ionization Detector) analysis performed on the following representative samples: (1) Fragrance Dosed Sorbent--a sorbent (CCC F600) loaded with a PRM (ethyl butyrate); (2) BM Malodor Standard--a volatile substance (AMM1—7 component version, an Analytical Malador Model developed by The Procter & Gamble Company comprising 7 volatile components); and (3) BM Malodor Standard with Fragrance Dosed Sorbent--ethyl butyrate loaded CCC F600 with AMM1. SPME-GC-FID is a commonly used method for analysis of volatile organic substances. The components of AMM1 are as follows:

Chemical Class of Odors	Representative Compound	CAS Number	Amount mg (wt%)
Aliphatic aldehydes	Decanal	112-31-2	25 (9)
Aliphatic ketones	2-pentanone	107-87-9	150 (54)
Mercaptans/disulfides	Dimethyl disulfide	624-92-0	50 (18)
Aromatic aldehydes	Benzaldehyde	100-52-7	10 (4)
Substituted phenols	*p*-cresol (4-methyl phenol)	106-44-5	10 (4)
Nitrogen compounds	Indole	120-72-9	20 (7)
Nitrogen compounds	Skatole	83-34-1	10 (4)

9. The SPME-GC-FID analysis comprised the following steps: 2μL of AMM1 was added into 20mL glass headspace vials sealed with Teflon septum closures. The fragrance dosed sorbent material was carefully added to the vial (at the level to be tested) such that there was no direct contact between AMM1 and the sorbent material. The control condition (sample 2) had no fragrance dosed sorbent material present. Headspace sampling was done after samples were allowed to equilibrate inside the headspace vials for a specified time. Headspace inside the sealed vials was sampled for 30 minutes at 30°C using a 2cm 50/30mm DVB/Carboxen/PDMS Stable Flex SPME Fiber (Supelco Inc, Bellefonte, PA, Cat No. 57348-U). Chemical analysis was performed on an Agilent 6890 GC equipped with a Gerstel MPS2 Autosampler, split/splitless and PTV injectors, and a Flame Ionization Detector. The SPME sampling fibers were thermally desorbed at 270°C for 2 minutes (splitless) inside the PTV injector, and the desorbed components were separated on a 30m x 0.32mm id x 1.0mm DB-1 column (J&W Scientific, Folsom, CA, Cat No. 123-5033). The column was temperature programmed from a 30°C initial temperature (5 minute hold) to a 250°C final temperature (11 minute hold) at 5°C/min. Column head pressure was held constant at 26 psi throughout the runs. The eluted components were detected using the FID operated at 300°C (H2 flow rate was 30 mL/min, air flow rate was 400 mL/min, make up nitrogen flow rate was 5 mL/min). Data collection and processing was performed on a Millenium chromatography data system (Waters Corporation, Milford, MA).

10. The attached chromatogram charts illustrate that the presently claimed volatile substance-controlling composition does not utilize slow-release fragrance agents as taught by Kobayashi. Rather, volatile substance sorption is directly linked to fragrance release, i.e. release of the fragrance is triggered by exposure of sorbent to one or more volatile substances. For example, Chart 1 is the headspace profile of ethyl butyrate loaded CCC F600. Chart 1 demonstrates the stability of ethyl butyrate loaded CCC F600, i.e. the ethyl butyrate is almost completely retained by the sorbent. Chart 2 is the headspace profile of the malodor standard AMM1. Chart 3 is the headspace profile of ethyl butyrate loaded CCC F600 with AMM1. Chart 3 demonstrates sorption of AMM1 (i.e. reduction in peaks) by ethyl butyrate loaded CCC F600. Also, the substantial level of ethyl butyrate in headspace demonstrates displacement of ethyl butyrate by AMM1 components. Thus, Kobayashi's teaching of a constant or uniform release of the fragrance component teaches away from the claimed invention which centers on a fragrance component impregnated onto the surfaces of a sorbent where release of the fragrance component is triggered by exposure to a volatile substance.

11. In view of this presentation of data, I once again state that one skilled in the art would not have been motivated by Kobayashi's disclosure of slow-release fragrance agents to use Applicants' wholly different gas displacement fragrance dosed sorbent technology to form the compositions that are the subject of the present application.

Further declarant sayeth not.

This declaration is made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001, and may jeopardize the validity of the above-captioned patent application or any patent issuing thereon.

9/1/06
Date

Bruce E. Tepper

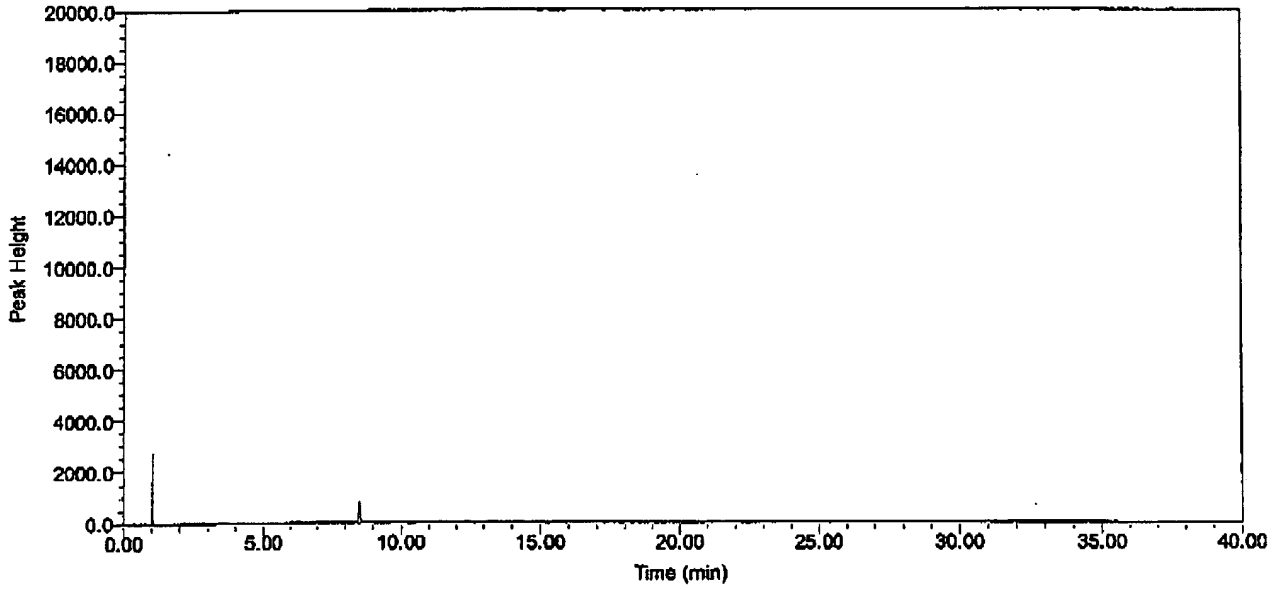
18 U.S.C. §1001 Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or advice a material fact, or makes any false, fictitious or fraudulent statement or representation, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than five years, or both.

Chart 1

Sample Information

SampleName	11.0 mg EB/F600 CCC	Sample Type	Unknown
Vial	2	Date Acquired	4/16/01 11:08:41 PM
Injection	1	Acq Method Set	RR_BMOdor_1
Injection Volume	1.00 ul	Processing Method	RR_BMOdor
Channel	HP6890 Ch1	Date Processed	3/7/03 2:21:52 PM
Run Time	60.0 Minutes		

Auto-Scaled Chromatogram



Integration Results

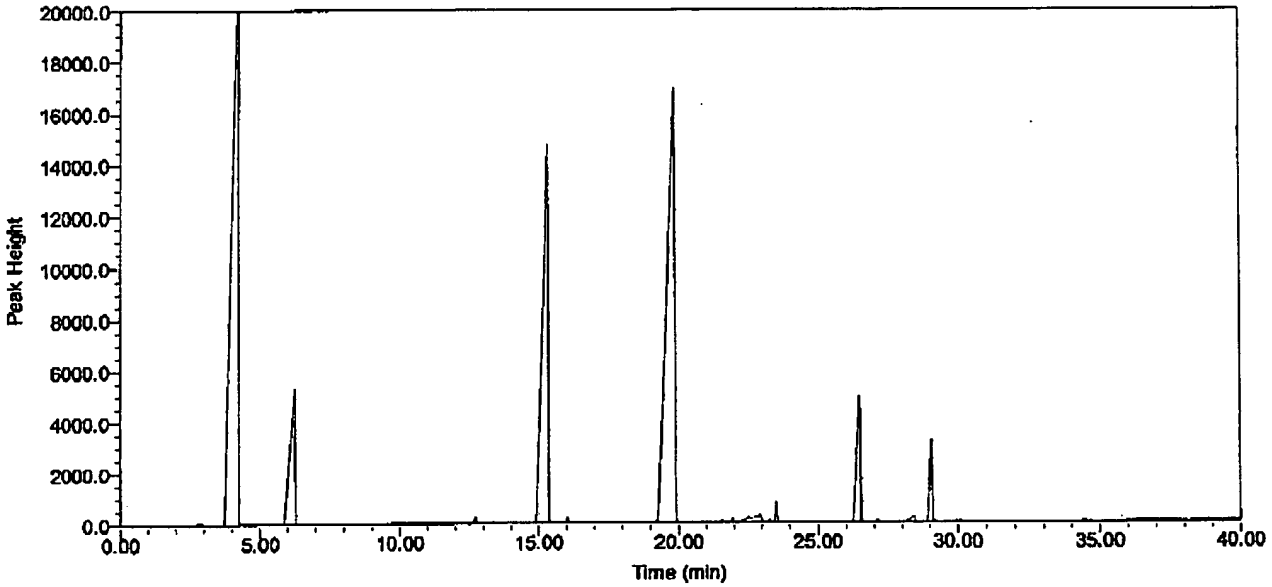
	Name	RT	Start Time	End Time	Area	Height	% Area	Int Type	Amount
1		1.034	1.023	1.170	2082	2776	38.62	BB	
2		8.518	8.437	8.670	3309	831	61.38	BB	

Chart 2

Sample Information

SampleName	2 ul BM std (7 component)	Sample Type	Unknown
Vial	2	Date Acquired	4/18/01 1:09:32 AM
Injection	1	Acq Method Set	RR_BMOdor_1
Injection Volume	1.00 ul	Processing Method	RR_BMOdor
Channel	HP6890 Ch1	Date Processed	3/7/03 2:22:37 PM
Run Time	60.0 Minutes		

Auto-Scaled Chromatogram



Integration Results

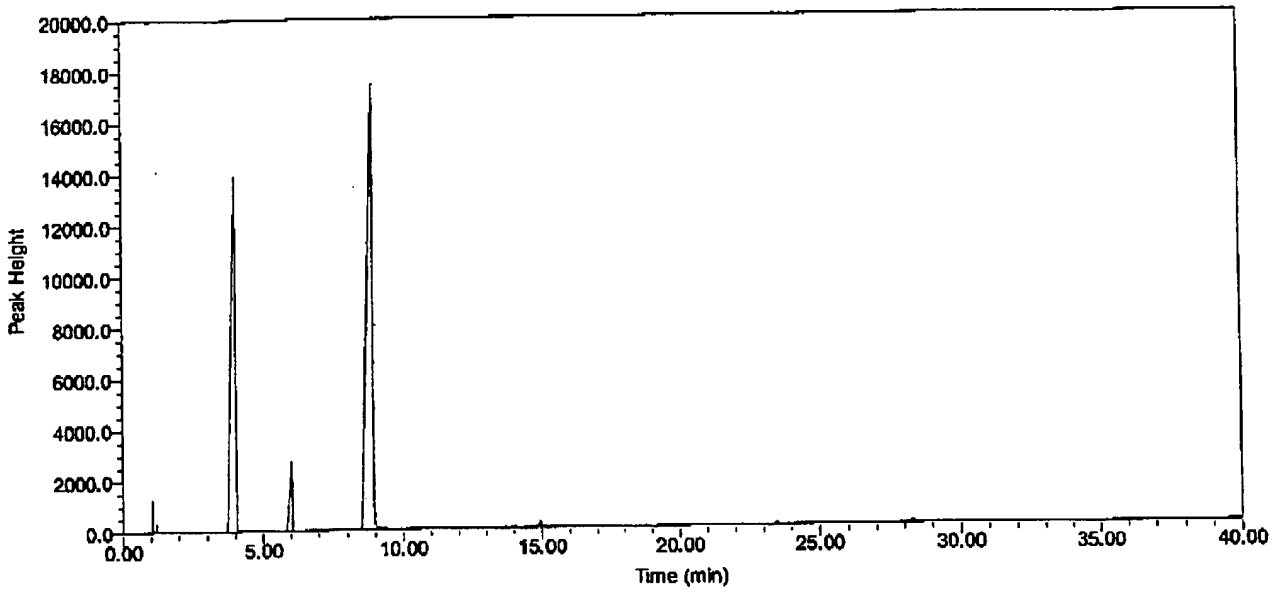
	Name	RT	Start Time	End Time	Area	Height	% Area	Int Type	Amount
1		4.238	3.718	4.370	351880	22277	35.71	BB	
2		6.247	5.808	6.370	61137	5289	6.20	BB	
3		12.691	12.582	12.837	1050	271	0.11	BB	
4		15.349	14.858	15.470	190627	14748	19.35	BB	
5		19.888	19.190	20.003	320816	16919	32.56	BB	
6		23.531	23.425	23.668	2875	788	0.29	BB	
7		26.498	26.195	26.533	38811	4931	3.94	BB	
8		29.091	28.863	29.237	18111	3232	1.84	BB	

Chart 3

Sample Information

ampleName	10.5 mg EB/F600 + 2 ul BM(7)	Sample Type	Unknown
ial	2	Date Acquired	4/17/01 6:42:14 PM
jection	1	Acq Method Set	RR_BMOdor_1
jection Volume	1.00 ul	Processing Method	RR_BMOdor
hannel	HP6890 Ch1	Date Processed	3/7/03 2:22:40 PM
un Time	60.0 Minutes		

Auto-Scaled Chromatogram



Integration Results

	Name	RT	Start Time	End Time	Area	Height	% Area	Int Type	Amount
1		1.043	1.032	1.303	1599	1318	0.42	BV	
2		4.032	3.715	4.170	137622	14030	36.05	BB	
3		6.039	5.782	6.170	18185	2727	4.76	BB	
4		8.939	8.478	9.103	222888	17438	58.39	BB	
5		14.938	14.845	18.015	1420	297	0.37	BB	